

RNA 4822Single row needle roller bearing with machined rings, with flanges, without inner ring

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Single row needle roller bearings without an inner ring consist of an outer ring with a needle roller and cage assembly. They are an excellent choice for compact bearing arrangements in applications where hardened and ground raceways can be provided on the shaft. The outer ring includes two integral flanges to guide the bearing axially and an annular groove with one or more lubrication holes to facilitate relubrication.

- High radial load carrying capacity
- High stiffness
- Low cross-sectional height
- Accommodate axial displacement in both directions

Overview

Dimensions

Bore diameter of needle roller complement	120 mm
Outside diameter	140 mm
Width	30 mm

Performance

Basic dynamic load rating	93.5 kN
Basic static load rating	232 kN
Reference speed	3 400 r/min
Limiting speed	3 800 r/min

Properties

Bearing part	Bearing without inner ring
Number of rows	1
Outer ring type	Machined (solid)
Aligning feature	Without
Cage	Sheet steel
Number of flanges, outer ring	2
Tolerance class	Normal
Material, bearing	Bearing steel
Coating	Without
Sealing	Without

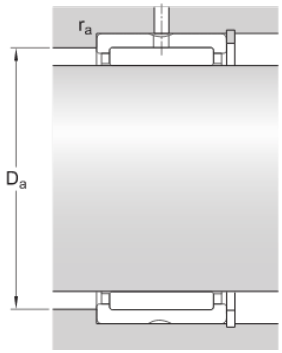
Lubricant	None
Relubrication feature	With

Technical Specification

NOT FOUND

Dimensions

F_w	120 mm	Diameter under rollers
D	140 mm	Outside diameter
C	30 mm	Width
$r_{1,2}$	min. 1 mm	Chamfer dimension outer ring



Abutment dimensions

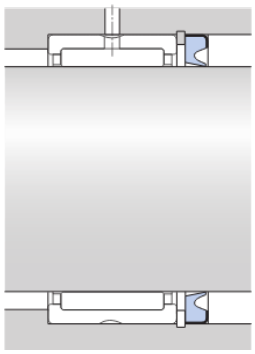
D_a	max. 135 mm	Abutment diameter housing (with flanges)
r_a	max. 1 mm	Fillet radius

Calculation data

Basic dynamic load rating	C	93.5 kN
Basic static load rating	C_0	232 kN
Fatigue load limit	P_u	27 kN
Reference speed		3 400 r/min
Limiting speed		3 800 r/min

Mass

Mass bearing	0.66 kg



Associated seals

120x140x12 HMS5 RG	Radial shaft seal

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